



Honey Badger Project Biological Evaluation/Biological Assessment for TES Plants

Idaho Panhandle National Forests
Coeur d'Alene River Ranger District

February 2021

Introduction

This Biological Assessment/Biological Evaluation analyzes and discloses potential effects to federally listed threatened, endangered and candidate plant species and Forest Service Region 1 sensitive plant species in the Honey Badger project area. Effects are evaluated based on field surveys, presence of plant occurrences and suitable habitat, and the effects to threatened, endangered, and sensitive species from proposed activities.

The Honey Badger project is consistent with relevant components of the Idaho Panhandle National Forests Land and Resource Management Plan, primarily FW-DC-VEG-09 and FW-GDL-VEG-07. Effects disclosed in the FEIS are applicable to the project and would trend terrestrial habitats toward desired conditions described for threatened, endangered and candidate plant species and Forest Service Region 1 sensitive plant species.

FW-DC-VEG-09. Habitat for plant species listed under the Endangered Species Act (ESA) is maintained or restored on NFS lands, thus contributing to species recovery or delisting. Ecological conditions and processes that sustain the habitats currently or potentially occupied by sensitive plant species are retained or restored. The geographic distributions of sensitive plant species in the Forest Plan area are maintained.

FW-GDL-VEG-07. Evaluate proposed management activities and project areas for the presence of occupied or suitable habitat for any plant species listed under the Endangered Species Act or on the regional sensitive species list. If needed, based on pre-field review, conduct field surveys and provide mitigation or protection to maintain occurrences or habitats that are important for species sustainability.

Past activities on NFS land in the project area include timber harvest, tree pruning, tree planting, non-commercial thinning of stands, road building and road maintenance and related forest management activities. Other past and ongoing activities include recreational use by the public (e.g. dispersed camping, hunting, fishing, firewood gathering, and trail use). Although some individual sensitive plants are likely to be impacted by proposed activities, overall cumulative impacts to sensitive plant populations and their habitat are expected to be minimal and habitat conditions would improve over time as conditions trend toward desired conditions described in the Forest Plan.

Threatened, Endangered and Candidate Species

U.S. Fish and Wildlife Service currently lists two plant species as threatened for the IPNFs, Water howellia (*Howellia aquatilis*) and Spalding's catchfly (*Silene spaldingii*). Water howellia is associated with shallow, vernal freshwater pools of wetlands, edges of larger ponds, and hydrologically active or abandoned river oxbows. Spalding's catchfly occurs chiefly in dry grassland habitats and grassland inclusions in ponderosa pine and Douglas-fir forest. Field surveys for these species have been conducted in potentially suitable habitat on the IPNFs although to date, no occurrences have been documented. Field surveys were also conducted in areas of proposed activities within the project area and no occurrences of or suitable habitat for either of these two species were observed.

U.S. Fish and Wildlife Service listed whitebark pine (*Pinus albicaulis*) as a candidate for federal listing. Given this status, the Regional Forester designated whitebark pine as a sensitive species. In December 2020, the Service proposed listing the species as species under the Endangered Species Act, as amended ([Federal Register](#)). Whitebark pine is associated with alpine and subalpine habitats. There is a small amount of sub-alpine habitat in the project area however, no activities are proposed in these habitats.

No occurrences of threatened or endangered species or their habitats were identified during field surveys where project activities would occur and therefore, there would be **no effect** to federally listed plants from proposed activities and the species are not discussed further.

Sensitive Plant Species

Habitat Guilds

Region 1 sensitive species known or suspected to occur on the Idaho Panhandle National Forests are listed in Table 23 of the Final Environmental Impact Statement (page 124) for the Revised Land Management Plan and Appendix A. Sensitive species are assigned to one or more plant habitat guilds, which are associations or groupings of plants with similar habitat requirements.

Results of Field Surveys

Surveys targeting Region 1 sensitive species were conducted in the project area over multiple field seasons. Intensive surveys were conducted within units that had the highest probability of occurrence and where project activities are proposed, i.e. where guilds intersect activity areas (vegetation treatment units, roads to be decommissioned or stored, and for road construction and reconstruction and maintenance). More general surveys were conducted in other areas to assess the potential for sensitive plant occurrences and to identify any microsites that might support such species and new occurrences. An inventory of plant species encountered during field surveys were recorded, including target sensitive species associated with habitat guilds in the project area. Copies of the surveys are available in project files.

Habitat and/or species present and potentially affected in the project area fall in the wet forest, moist forest, and dry forest habitat guilds. Surveys in the project areas identified individual occurrences of sensitive plants and have been catalogued for future surveys. Direct effects to these individuals are not expected to change population dynamics at the landscape scale and across the entire Idaho Panhandle National Forests (the planning unit). These plants are categorized as G4 and 5 and S3 and considered relatively common throughout their range although vulnerable in the State (Table 1).

Three occurrences of sensitive plant species were found in activity areas; one occurrence in Unit 22 and one in Unit 109, and one adjacent to haul route 1562. Unit 22 was dropped during project development because of limited access, the occurrence found in Unit 109 occurs in a previously harvested unit and population effects from similar activities under the proposed action are not expected to cause negative consequences for the population as a whole and across the landscape. The occurrence of clustered lady’s slipper adjacent to road 1562 is not considered sensitive to similar project activities, because the route was constructed during previous vegetation management efforts, indicating the species may be adapted or resilient to disturbance.

Table 1. Summary of individual occurrences of sensitive species.

Status/Presence	Botrychium minganense (Mingan moonwort)	Buxbaumia viridis (Green shield moss)	Cypripedium fasciculatum (Clustered lady’s slipper)	Botrychium pinnatum (Northern moonwort)
NatureServe global rank (2020)	G-4 (apparently secure) to G-5 (Secure)	G-4 (apparently secure)	G-4 (apparently secure)	G-5 (secure)
NatureServe sub-national (state) rank (2020)	S-3 (vulnerable)	S-3 (vulnerable)	S-3 (vulnerable)	S-2 (imperiled)
Habitat guild(s)	wet and moist	wet and moist	wet and moist and dry	wet and moist
Number of known forest level occurrences	81	42	21	5
Number of project area occurrences found	3	1	2	1
Number of found occurrences in/near proposed activities	1 (within Unit 22)	1 (within Unit 109)	1 (adjacent to haul route 1562)	0
Acres of Guild(s) across the Forest	382,000	382,000	478,000	382,000
Acres of Guild(s) in Project and % of Forest Guilds	6,288 (1.5)	6,288 (1.5)	15,000 (3)	6,288 (5)

Mingan and Northern moonworts are *disturbance tolerant* species associated with the wet and moist forest habitat guilds. Once short-term impacts dissipate, these species may benefit from the proposed action, as it would move forest conditions and structure toward the desired conditions described in the Forest Plan. Associated with earlier successional stages, moonwort habitat would recover more quickly than that of other species associated with old growth and mature forest conditions, where proposed activities will not occur.

Clustered lady’s slipper and green shield moss fall into the a more *disturbance intolerant* category associated with shaded, humid, mature/ old growth forested areas with continued input of decaying wood and/ or with micro-sites like rock cliffs and outcrops or seeps within moist and wet forest habitat. Physical disruption of the understory community through project treatments may impact individual occurrences or local populations, especially if they have low resilience to mechanical disturbance. In addition to their association with moist and wet forest habitat guilds, clustered lady’s slipper also occurs in the dry forest habitats. Current data suggest that the species does not tolerate disturbance because it is associated with later seral stages, although the occurrence found in the project area was within an existing road prism with past disturbance.

Effects Analysis

Overview

The analysis for effects to sensitive species was conducted based on the results of botanical surveys, known population distribution of plants in the project area, relevant scientific literature, and professional judgment.

The spatial boundary for analyzing direct, indirect and cumulative effects to sensitive plants is the project boundary. Analysis includes not only areas proposed for timber harvest and prescribed burning activities, but also the areas proposed for ground disturbance as part of road construction or other road work associated with the Honey Badger project.

The temporal boundaries for short-term effects range from time of implementation to approximately ten years after project completion, after which time effects would diminish as reforestation efforts become realized. Beyond ten years, the likelihood of activities affecting sensitive plants or their habitat would be difficult to predict. Generally, long-term effects to rare plants or their suitable habitat would be considered anything longer than ten years.

The proposed action is intended to improve forest conditions and reduce the potential for large scale wildfires and community fire protection in the Wildland Urban Interface (WUI). Comparison of existing conditions to desired conditions described in the Forest Plan indicate a need in the Honey Badger project area for activities that will improve forest resiliency, reduce potential for high-intensity wildfire, provide a sustainable network of recreation trails, maintain or improve aquatics, and contribute economic benefit to local communities and the general public.

Activities are designed to meet project objectives while minimizing or avoiding long-term negative consequences to other resources. In addition, site-specific design criteria would be applied, where necessary, through unit layout, and/or applicable contract clauses during timber sale development, forest plan direction and agency policy, best management practices, best available science, site-specific evaluations, and public concerns.

Effects of No Action

Because none of the proposed activities would take place, the no action alternative would have no direct effects on sensitive plants or their habitat.

Indirect effects of the no action alternative on sensitive plant habitat and populations would include heightened risks from wildfires associated with increased fuel loads over time. If a wildfire started in the project area, accumulated fuels could contribute to a high-intensity fire resulting in loss of sensitive plant individuals and suitable habitat. A severe wildfire could destroy sensitive plants in the project area, substantially reduce canopy cover and change soil conditions such as mycorrhizal associations, sterilization, structure, chemistry).

Forest health issues will continue to be present across the landscape and stand conditions will not meet desired conditions described throughout the Forest Plan and sensitive plant habitat will not trend towards historic conditions and declines in populations associated with early seral conditions or disturbance could be expected.

Effects of Proposed Activities

Effects to sensitive plants from proposed activities are focused on canopy removal and soil disturbance, which are key concerns for many Region 1 sensitive plant species and are described in the FEIS for the Forest Plan. In addition, invasive plant species can displace rare species through competitive displacement which are also generally described in the FEIS for the Forest Plan. After reviewing the proposed action, effects associated with timber harvest, fuels management, road construction and maintenance, and recreation management the effects are contextually the same as those disclosed in the Forest Plan FEIS, beginning on page 122 of the of the FEIS, and project file documentation for the Forest Plan.

Proposed vegetation treatments would remove overstory canopy in the short-term, until reforestation efforts are completed and shrubs and trees are reestablished on the site, typically 10 years or less. In ground based harvesting units, there would be soil disturbance or compaction and managed to not be detrimental over the long-term. Use of skyline yarding would result in much less soil disturbance or compaction. Road construction (both permanent and temporary) would have canopy removal and soil disturbance or compaction, but at a limited scale, the effects of which are also disclosed in the FEIS. Forest Plan direction related to soils would minimize soil displacement and compaction and protect against detrimental disturbance and long-term effects to site productivity and associated impacts to sensitive species.

In the short-term, canopy removal would affect habitat suitability for plants adapted to later seral stages of moist and wet and dry habitats, including the three individual occurrences of sensitive species. Short term impacts are expected in treated areas until regenerated shrubs and trees are large enough to begin shading-out weeds and reestablishing sites to desired conditions that are favorable for native species.

When necessary, to protect unique occurrences of individuals or populations, a protective buffer would be applied based on local site conditions such as tree heights and topography as examples. that take into account changes in ecological conditions such as sunlight, water availability, or soil, until trees are reestablished on the site. No unique occurrences of individuals or populations were identified during field surveys.

Determinations

The proposed action would result in **no effect** to plants associated with the aquatic, peatland, deciduous riparian, subalpine, or cold forest habitat guilds, as those habitats are not associated with project activities.

Sensitive species that occur in dry forest habitat could be affected due to the amount of canopy reduction, but at such a small relative scale to their potential population extent and other available habitat as to have no measurable effect. Therefore, the Proposed Action would have **no impact** to the sensitive species associated with these habitat guilds.

For sensitive species associated with moist and wet and dry forest habitats the proposed activities **may impact** individuals but will not likely contribute to a trend towards Federal listing or cause loss of viability to the population or species (see also Appendix A).

The proposed action is expected to have short-term impacts to sensitive plants in the moist, wet, and/or dry habitat guilds. Over the long-term, it is anticipated that there will be beneficial impacts in treated areas for sensitive plant species whose habitat(s) developed based on shorter cycles of disturbance, as the proposed action moves the project area toward the desired conditions for vegetation communities (FW-DC-VEG-11). See also discussion in the Forest Plan FEIS beginning on (page 128).

The restoration of historical fire regimes and restoration of conditions towards desired conditions with a range of seral stages for different potential vegetation groups may benefit some rare species in the long-term (Forest Plan FEIS page 131.) Vegetation management and fuel reduction activities would result in a lower-intensity fire that more closely mimics historical fire cycles of 10- to 30-years and to which native species would be adapted (and that therefore might be beneficial).

Habitat and species adapted to earlier successional stages and/or requiring periodic disturbance will recover more quickly. Recovery of habitats in the treatment areas could vary from a few years to several decades depending upon the species and post-management conditions. For early seral or transitional sensitive species, the post-management condition would be one of habitat initiation or improvement. This would help maintain or reset the habitat for the future. Later seral conditions that may provide habitat or rare species requiring older forests may require decades after treatment to again provide habitat. However, treatments intended to promote or maintain older forests could benefit such species through stand maintenance and disturbance.

Undetected sensitive plant occurrences may be directly impacted by activities associated with vegetation restoration activities, timber removal and associated equipment and personnel, and disturbances related to the various types of roadwork. Annual plants that experience disturbance prior to seed set may experience subsequent decreased viability as a consequence of a reduced seed bank. Perennial plants may experience ground disturbance to rootstocks (rhizomes, taproots, and bulbs), potentially inhibiting the plants' ability to re-sprout from rootstock. Natural disturbances are also a factor of consideration for impacts to individual plants and local populations.



Appendix A – Sensitive Species List and Determinations

Number	Scientific Name	Common Name	Status ¹	Occurrence	Habitat Guild	Determination
1	<i>Andromeda polifolia</i>	Bog rosemary	S	Known	Peatland	No Effect - No project activities associated with this guild.
2	<i>Asplenium trichomanes</i>	Maidenhair spleenwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
3	<i>Aster junciformis</i>	Rush aster	S	Known	Peatland	No Effect - No project activities associated with this guild.
4	<i>Astragalus microcystis</i>	Least bladder milkvetch	S	Historically Known	Dry Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
5	<i>Betula pumila</i>	Dwarf birch	S	Known	Peatland Deciduous Riparian	No Effect - No project activities associated with these guilds.
6	<i>Blechnum spicant</i>	Deerfern	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
7	<i>Botrychium ascendens</i>	Upswept moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
8	<i>Botrychium crenulatum</i>	Dainty moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
9	<i>Botrychium lanceolatum</i>	Triangle moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
10	<i>Botrychium lineare</i>	Slender moonwort	S	Historically Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
11	<i>Botrychium minganense</i>	Mingan moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is found in the project area and <i>one occurrence identified</i> . Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
12	<i>Botrychium montanum</i>	Western goblin	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.

Number	Scientific Name	Common Name	Status ¹	Occurrence	Habitat Guild	Determination
13	<i>Botrychium paradoxum</i>	Peculiar moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
14	<i>Botrychium pedunculosum</i>	Stalked moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
15	<i>Botrychium pinnatum</i>	Northwestern moonwort	S	Known	Moist Forest	May Impact Individuals – Habitat guilds are found in the project area and <i>one occurrence identified</i> . Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
16	<i>Botrychium simplex</i>	Least moonwort	S	Known	Moist Forest Dry Forest	May Impact Individuals – Habitat guilds are available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
17	<i>Buxbaumia aphylla</i>	Leafless bug-on-a-stick moss	S	Suspected	Moist Forest Subalpine	May Impact Individuals – Moist Forest habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
18	<i>Buxbaumia viridis</i>	Green bug-on-a-stick moss	S	Known	Moist Forest	May Impact Individuals – Habitat guild is found in the project area and <i>one occurrence identified</i> . Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
19	<i>Cardamine constancei</i>	Constance's bittercress	S	Known	Deciduous Riparian Moist Forest	May Impact Individuals – Moist Forest habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
20	<i>Carex buxbaumii</i>	Buxbaum's sedge	S	Known	Peatland Moist Forest	May Impact Individuals – Moist Forest habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
21	<i>Carex chordorrhiza</i>	String-root sedge	S	Known	Aquatic Peatland	No Effect - No project activities associated with these guilds.
22	<i>Carex comosa</i>	Bristly sedge	S	Known	Peatland	No Effect - No project activities associated with this guild.
23	<i>Carex flava</i>	Yellow sedge	S	Known	Peatland	No Effect - No project activities associated with this guild.
24	<i>Carex leptalea</i>	Bristle-stalked sedge	S	Known	Peatland	No Effect - No project activities associated with this guild.
25	<i>Carex livida</i>	Pale sedge	S	Known	Peatland	No Effect - No project activities associated with this guild.
26	<i>Carex paupercula</i>	Poor sedge	S	Known	Peatland	No Effect - No project activities associated with this guild.

Number	Scientific Name	Common Name	Status ¹	Occurrence	Habitat Guild	Determination
27	<i>Cicuta bulbifera</i>	Bulb-bearing water hemlock	S	Known	Aquatic Peatland	No Effect - No project activities associated with these guilds.
28	<i>Cypripedium fasciculatum</i>	Clustered lady's slipper	S	Known	Moist Forest Dry Forest	May Impact Individuals – Habitat guilds are found in the project area and <i>one occurrence identified</i> . Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
29	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	Greater yellow lady's slipper	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
30	<i>Drosera intermedia</i>	Spoon-leaved sundew	S	Known	Peatland	No Effect - No project activities associated with this guild.
31	<i>Dryopteris cristata</i>	Crested shield fern	S	Known	Peatland	No Effect - No project activities associated with this guild.
32	<i>Epilobium palustre</i>	Swamp willow weed	S	Known	Peatland	No Effect - No project activities associated with this guild.
33	<i>Epipactis gigantea</i>	Giant helleborine	S	Suspected	Peatland	No Effect - No project activities associated with this guild.
34	<i>Eriophorum viridicarinatum</i>	Green-keeled cotton grass	S	Known	Peatland	No Effect - No project activities associated with this guild.
35	<i>Gaultheria hispidula</i>	Creeping snowberry	S	Known	Peatland Moist Forest	May Impact Individuals – Moist Forest habitat guild is found in the project area. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
36	<i>Grimmia brittoniae</i>	Britton's dry rock moss	S	Known	Moist Forest Dry Forest	May Impact Individuals – Habitat guilds are available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
37	<i>Grindelia howellii</i>	Howell's gumweed	S	Known	Dry Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.

Number	Scientific Name	Common Name	Status ¹	Occurrence	Habitat Guild	Determination
38	<i>Hookeria lucens</i>	Clear Moss	S	Historically Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
39	<i>Howellia aquatilis</i>	water howellia	T	Suspected	Aquatic	No Effect - No project activities associated with this guild.
40	<i>Hypericum majus</i>	Large Canadian St. Johnswort	S	Known	Peatland	No Effect - No project activities associated with this guild.
41	<i>Iris versicolor</i>	Blue flag iris	S	Known	Peatland	No Effect - No project activities associated with this guild.
42	<i>Lycopodiella inundata</i>	Northern bog clubmoss	S	Known	Peatland	No Effect - No project activities associated with this guild.
43	<i>Lycopodium dendroideum</i>	Ground pine	S	Known	Deciduous Riparian Moist Forest Cold Forest	May Impact Individuals – Moist Forest habitat guild is found in the project area. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
44	<i>Meesia longiseta</i>	Meesia moss	S	Known	Peatland	No Effect - No project activities associated with this guild.
45	<i>Mimulus alsinoides</i>	Chickweed monkeyflower	S	Known	Moist Forest Dry Forest	May Impact Individuals – Habitat guilds are available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
46	<i>Phegopteris connectilis</i>	Northern beechfern	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
47	<i>Pinus albicaulis</i>	Whitebark pine	S	Known	Cold Forest Subalpine	No Effect - No project activities associated with these guilds.
48	<i>Polystichum braunii</i>	Braun's hollyfern	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
49	<i>Rhizomnium nudum</i>	Naked mniium	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.

Number	Scientific Name	Common Name	Status ¹	Occurrence	Habitat Guild	Determination
50	<i>Rhynchospora alba</i>	White beakrush	S	Known	Peatland	No Effect - No project activities associated with this guild.
51	<i>Salix candida</i>	Hoary willow	S	Known	Peatland Deciduous Riparian	No Effect - No project activities associated with these guilds.
52	<i>Salix pedicellaris</i>	Bog willow	S	Known	Peatland	No Effect - No project activities associated with this guild.
53	<i>Scheuchzeria palustris</i>	Pod grass	S	Known	Peatland	No Effect - No project activities associated with this guild.
54	<i>Schoenoplectus subterminalis</i>	Water clubrush	S	Known	Aquatic Peatland	No Effect - No project activities associated with these guilds.
55	<i>Silene spaldingii</i>	Spalding's catchfly	T	Suspected	Dry Forest	No Effect – No occurrences found in project area.
56	<i>Sphagnum mendocinum</i>	Mendocine peatmoss	S	Known	Peatland	No Effect - No project activities associated with this guild.
57	<i>Streptopus streptopoides</i>	Krushea	S	Known	Moist Forest Cold Forest	May Impact Individuals – Moist Forest habitat guild is found in the project area. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
58	<i>Thelypteris nevadensis</i>	Sierra wood fern	S	Suspected	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.
59	<i>Triantha occidentalis ssp. brevistyla</i>	Short-styled sticky tofieldia	S	Known	Peatland Subalpine	No Effect - No project activities associated with these guilds.
60	<i>Trichophorum alpinum</i>	Hudson's Bay bulrush	S	Known	Peatland	No Effect - No project activities associated with this guild.
61	<i>Trientalis arctica</i>	Northern starflower	S	Known	Peatland	No Effect - No project activities associated with this guild.
62	<i>Vaccinium oxycoccos</i>	Bog cranberry	S	Known	Peatland	No Effect - No project activities associated with this guild.

Number	Scientific Name	Common Name	Status ¹	Occurrence	Habitat Guild	Determination
63	<i>Waldsteinia idahoensis</i>	Idaho barren strawberry	S	Known	Moist Forest	May Impact Individuals – Habitat guild is available in the project area although no individuals found. Habitat will be improved as existing conditions trend towards desired conditions described in the Forest Plan.

¹ Status: S = Sensitive; T = Threatened; E = Endangered

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